CLAIMS

I claim:

1. A method of recognizing shapes from a scribble, the method comprising the steps of:
    a. identifying one or more important points in a scribble;
    b. determining whether said scribble resembles a closed figure;
    c. determining whether said scribble resembles a figure with more straight sides than curved sides;
    d. recognizing said scribble as a line segment if said scribble has exactly two important points;
    e. recognizing said scribble as a straight curve if said scribble has more than two important points and said scribble has more straight sides than curved sides and said scribble is not a closed figure;
    f. recognizing said scribble as a spline if said scribble has more than two important points and said scribble does not have more straight sides than curved sides and said scribble is not a closed figure;
    g. recognizing said scribble as a closed plane figure if said scribble has more than two important points and said scribble has more straight sides than curved sides and said scribble is a closed figure;
    h. recognizing said scribble as a closed spline if said scribble has more than two important points and said scribble does not have more straight sides than curved sides and said scribble is a closed figure.

2. A method of identifying an important point in a scribble between a first point in said scribble and a second point in said scribble, said first point not equal to said second point and said first point not equal to said

important point and said second point not equal to said important point, the method comprising the steps of:

a. finding a third point on the scribble between said first point and said second point, such that the distance between said third point and a postulated line extending through said first point and said second point is equal to or greater than the distance between said postulated line and any other point between said first point and said second point;

b. identifying said third point as an important point if the distance between said third point and said postulated line meets predetermined criteria.

3. The method of claim 2, wherein said predetermined criteria includes comparing said distance between said third point and said postulated line to a constant value.

4. A method of determining whether a set of points in a scribble, all of said points in said set being between a first point in said scribble and a second point in said scribble, resembles either a curve or a line segment, the method comprising the steps of:

a. calculating the distance of at least two points in said set of points from a postulated line extending through said first point and said second point;

b. concluding that said set of points resembles a line segment if a statistical distribution of said distances meets predetermined criteria.

5. A computer system that identifes an important point in a scribble between a first point in said scribble and a second point in said scribble, said first point not equal to said second point and said first point not equal to said important point and said second point not equal to said important point, in which said computer system:
    a. finds a third point on the scribble between said first point and said second point, such that the distance between said third point and a postulated line extending through said first point and said second point is equal to or greater than the distance between said postulated line and any other point between said first point and said second point;
    b. identifies said third point as an important point if the distance between said third point and said postulated line meets predetermined criteria.